

Amendments to the Drawings:

Please replace the drawing sheet bearing Figure 1 with the drawing sheet attached in Appendix A.

The specific change which has been made to Figure 1 is the inclusion of "Prior Art" in that figure.

REMARKS

The Office Action mailed on October 4, 2007, has been reviewed and the comments of the Patent and Trademark Office have been considered. Prior to this paper, claims 1-43 were pending, with claims 15-43 standing withdrawn. By this paper, Applicants cancel claims 2, 15 and 19-30, and do not add or cancel any claims. Therefore, claims 1, 3-14, 16-18 and 31-43 remain pending.

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Acknowledgement of References Cited

With regard to the IDS submitted February 08, 2007, the Office Action states that KR 2001-0072835 was not considered, and the returned Form PTO/SB/08 indicates such.

Applicants note that 37 C.F.R §1.98(A)(3)(ii) states that Applicants provide:

A copy of the translation if a written English-language translation of a non-English-language document, or portion thereof, is within the possession, custody, or control of, or is readily available to any individual designated in § 1.56(c).

Applicants point out that a written English-language translation is not within the possession, custody, or control of, or is readily available to any individual designated in § 1.56(c). Accordingly, no translation is needed, and thus KR 2001-0072835 should be considered, because the IDS submitted on February 08, 2007, fully complies with the rules regarding foreign references to which a translation of even an abstract is not available.

Applicants respectfully request that the reference KR 2001-0072835, listed on the form submitted with the Information Disclosure Statement filed by Applicants on February 08, 2007, be initialed by an examiner and a copy of the form showing the initialization be provided to Applicants' agent. Additional copies of the Form PTO/SB/08 are enclosed for the PTO's convenience in Appendix B.

Objections to the Drawings

Reconsideration of the objections to the drawings is requested in view of the amendments to the drawings presented in Appendix A of this paper.

Rejections Under 35 U.S.C. § 102

Claims 1, 2, 4-7, 9, 11, 13 and 14 stand rejected under 35 U.S.C. §102(b) as being anticipated by Yoshida (EP 0858120). In response, Applicants hereby amend claims 1 and 14 to include the recitations of claims 2 and 15, respectively, effectively placing formerly pending claims 2 and 15 into independent form (thus rendering the rejections of claims 1 and 14 moot), and further place claims 9 and 11 into independent form, and respectfully traverse the rejections of the remaining claims under 35 U.S.C. §102(b) for the reasons that follow.

Applicants rely on MPEP § 2131, entitled “Anticipation – Application of 35 U.S.C. 102(a), (b), and (e),” which states that a “claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” Section 103 amplifies the meaning of this anticipation standard by pointing out that anticipation requires that the claimed subject matter must be “*identically* disclosed or described” by the prior art reference. (Emphasis added.) It is respectfully submitted that Yoshida does not describe each and every element of any claim now pending, as will now be detailed.

* * * * *

As a preliminary matter, Applicants previously detailed why Yoshida fails to teach the claimed density gradient recited in each of the independent claims with respect to the stringent requirements of 35 U.S.C. §102, and the Office Action entirely ignored those arguments in its “Response to Arguments” section. Not once does the Office Action address the basic issue that the teachings of Yoshida identified in the Office Action do not correspond to an electrode active material layer having a density gradient. Instead, those teachings amount to merely a disclosure of a density gradient of a polymer used in the cell. A

polymer is not the same as an electrode active material layer, and the Office Action does not comment on this at all.

* * * * *

Specifically, claim 1 recites a secondary cell electrode which comprises “an electrode active material layer having a density gradient.” Claim 1 further recites that the electrode includes a “nonaqueous electrolyte cell-oriented electrode in which the electrode active material layer is formed on a collector, having the density gradient developed with a gradient of a solid concentration increasing along a thickness from a surface of the electrode active material layer toward the collector.” An exemplary embodiment of the present invention may be seen in Fig. 2, which depicts a nonaqueous electrolyte secondary cell 10 including an active material layer 12, in which, in a first depth zone 12a near a top surface of the layer, the concentration of solid active material 14a in electrolyte 15a is relatively small, and this concentration increases from zone 12a to zone 12c (see Fig. 2).

Yoshida does not teach, either expressly or inherently, the just-quoted features of claim 1. That is, not only does Yoshida fail to teach an electrode active material layer having a density gradient, it also fails to teach a gradient of a solid concentration increasing along a thickness from a surface of the electrode active material layer towards a collector.

The Office Action points to page 7, lines 34-38 of Yoshida as containing a teaching of the claimed gradient feature. However, the Office Action misinterprets the teachings of Yoshida. As previously detailed and repeated here, *all that Yoshida teaches is a density gradient of a polymer used in an exemplary cell*. A density gradient of a polymer is not what is claimed in claim 1. Claim 1 recites instead an electrode active material layer having a density gradient. The varied distribution of the particulate polymer in the cell of Yoshida does not constitute a corresponding feature which meets the stringent requirements of rejecting a claim as anticipated. In regard to any teachings in Yoshida relating to the densities of active materials, at most, all that Yoshida teaches is a variation in the ratio of the active material in the whole cell of Yoshida. However, the macroscopic variation of active material from cell to cell is different than the microscopic density gradient of an active material layer within the same cell. Indeed, Yoshida specifically teaches that the polymer is introduced into

voids in the cell (see page 7, lines 26-30). Accordingly, any active material in Yoshida cannot have a density gradient as claimed in claim 1.

This difference between Yoshida and claim 1 are more than mere design choice. Instead, those differences represent a fundamental difference between the invention as claimed and the prior art; differences that results in an improvement on that prior art. For example, in an embodiment according to claim 1, the density gradient of the electrode active material layer is developed by printing a plurality of electrode thin layers where the solid concentration in each thin layer is different and increases successively from one layer to the next. In contrast, according to the teachings of Yoshida, a mere paste like mixture is applied to a collector, and the recited density gradient cannot be formed in such a process. That is, according to the teachings of Yoshida, only the concentration of the polymer introduced into the voids of the cell is changed, but this does not result in a density gradient of an electrode active material layer being formed.

In sum, claim 1 is not anticipated by Yoshida, either before or after the above-proffered amendments.

* * * * *

Independent claims 9, 11 and 14 are allowable for at least the pertinent reasons that make claim 1 allowable. The claims that depend either from independent claims 1, 9, 11 and 14 are not anticipated at least due to the allowability of the independent claims with respect to Yoshida. Reconsideration is requested.

Rejections Under 35 U.S.C. § 103

Claims 3, 8, 10, and 12 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Yoshida in view of Tanjo (United States Patent Application Publication No. 2002/0028380). Applicants respectfully traverse the rejections as to the claims above, and submit that these claims are allowable for at least the following reasons.

The Cited References Do Not Suggest All Claim Recitations

The cited references do not meet the third requirement of MPEP § 2143, which is that “the prior art reference (or references when combined) must teach or suggest all the claim limitations.”

As detailed above, Yoshida fails to teach all of the features of claim 1, from which all the claims rejected as obvious depend. Yoshida also fails to suggest those features, and the Office Action does not assert the contrary. As Tanjo does not remedy the deficiencies of Yoshida with respect to MPEP §2143 (and the Office Action does not allege the contrary), the alleged combination of Yoshida and Tanjo fails to satisfy the third requirement of MPEP §2143.

In the “Response to Arguments Section,” the Office Action never once explains why Applicants are allegedly wrong with regard to their well founded and detailed arguments that the Yoshida-Tanjo combination does not teach or suggest each element of claim 1. Instead, the Office Action merely states that the “Examiner respectfully disagrees,” maintaining the rejection “with the reasons set forth above.”

Applicants have detailed why the interpretation of the Yoshida reference is flawed with respect to each element of the claims, but the PTO never addresses these arguments. Applicants submit that the claims are not obvious for at least the reason that neither Yoshida nor Tanjo, alone or in combination, disclose or suggest each and every element of any claim rejected as being obvious, as detailed above. Reconsideration is requested.

Lack of Sufficiently Articulated Rationale to Modify or Combine the References

The Office Action asserts that Tanjo teaches the missing elements of Yoshida, and merely alleges that because those missing elements were taught in Tanjo, the skilled artisan would have modified Yoshida to include those teachings. Applicants submit that this is an insufficient rationale to modify Yoshida / combine the references. This point was made in the Response of September 12, 2007. The Office Action never once disputes this, instead merely

arguing that Applicants are incorrect in further asserting that the rationale provided in the Office Action to modify Yoshida essentially relies solely on the Applicants' disclosure.

Applicants also hereby argue that Office Action uses impermissible hindsight, forbidden by MPEP §2142, entitled "Legal Concept of *Prima Facie* Obviousness."¹ Applicants provide a rationale for utilizing the elements recognized as missing from Yoshida. It appears that the Office Action is utilizing the Applicants' own disclosure against them for motivation to modify the prior art. While it is permissible under certain circumstances to use teachings in the "background section" of an application to teach missing elements of the prior art, it is impermissible to use Applicants' application against them for motivation to combine or modify references.

In retort to this argument, presented in the Response of September 12, 2007, the Office Action merely asserts that "so long as [the judgment of obviousness] takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper," citing "*In re McLaughlin*." However, no analysis whatsoever is provided as to why the assertions in the Office Action correspond to the facts of that case. Indeed, the Office Action does not provide any rationale or even a conclusory assertion that the proffered obviousness arguments do take into account only knowledge which was within the level of ordinary skill at the time. The arguments in the Office Action essentially amount to the PTO taking the position that an applicant may never argue that impermissible hindsight has been relied on in an Office Action – a position that is incorrect. Put another way, the Office Action dismisses Applicants' well founded arguments regarding the lack of obviousness of the claims by merely repeating general language of a case without any specific application to the facts at hand. Indeed, there is no analysis whatsoever in the Office Action applying the facts of *In re McLaughlin* to the facts at hand. So sweeping is the use of *In re McLaughlin* in the Office Action that it is as if, by analogy to criminal law, an assault victim who defends himself/herself is to be convicted of murder solely on the rationale that a judge identified a case somewhere that stated the truism that a defendant who argues self defense may still be guilty of murder if there is evidence that the defendant did not

¹ MPEP §2142 states that "impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art."

act in self defense. This hypothetical is analogous to the use of *In re McLaughlin* in the Office Action.

To illustrate the point further, the Office Action asserts that if the rejection (1) “takes into account only knowledge which was within the level of ordinary skill” and (2) “does not include knowledge gleaned only from the applicant’s disclosure,” such a reconstruction is proper. However, never does the Office Action identify where the knowledge was allegedly present at the time the invention was made, and never does the Office Action provide any evidence or rationale that it is meeting either of points “1” and/or “2.”

Because of an insufficient rationale to modify the prior art, a prima facie case of obviousness has not been established, and thus the claims are allowable.

Rejoinder of Claims 16-18 and 31-43

Claims 15-43 stand withdrawn. While claims 15 and 19-30 have been cancelled, claims 16-18 and 31-43 remain pending. Applicants note that these claims depend either directly or ultimately from either of claims 1 or 14. Applicants respectfully request that these claims be rejoined and allowed due to their dependency from these claims – claims which are allowable. Applicants respectfully submit that no significant burden is placed on the PTO by rejoining and examining these claims. Indeed, such action is concomitant with the indication that “upon allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim.”

Conclusion

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment,

to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Examiner Wang is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

Respectfully submitted,

By

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APPENDIX A